70. (Amended) The method of manufacturing a substrate as defined in claim 66, wherein the substrate is either of an insulating film or of printed substrate.

71. (Amended) The method of manufacturing a substrate as defined in claim 67, wherein the substrate is either of an insulating film or of printed substrate.

72. (Amended) The method of manufacturing a substrate as defined in claim 66, after adhering the wiring pattern, further comprising providing an adhesive in which an anisotropic conductive material having conductive particles are dispersed.

73. (Amended) The method of manufacturing a substrate as defined in claim 67, after adhering the wiring pattern, further comprising providing an adhesive in which an anisotropic conductive material having conductive particles are dispersed.

REMARKS

Claims 53-73 are pending. By this Amendment, the specification is amended and claims 53, 55, 58, 59, 66, 67 and 70-73 are amended.

The attached Appendix includes marked-up copies of each rewritten paragraph (37 C.F.R. §1.121(b)(1)(iii)) and claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants appreciate the courtesies extended to Applicant's representative at the February 19 personal interview. The substance of the discussion held are incorporated into the following remarks.

I. Specification Satisfies All Formal Requirements

The Office Action objects to the specification for failure to include the continuing data as well as for confusion with respect to Figs. 8A and 8B. Attached hereto is the Continuing Application Transmittal which, at paragraph 5, amends the specification to include the continuation data. Also, attached hereto is a Response to Notice to File Corrected Application Papers With Formal Drawings indicating that Figs. 8A and 8B are the correct figures.

The specification has been amended at page 25, lines 17-22 to obviate the remaining objection.

II. The Claims Satisfy All Formal Requirements

The Office Action objects to claims 70 and 71 due to informalities. Claims 70 and 71 are amended to obviate this objection.

III. Double Patenting Rejection

The Office Action rejects claims 53-65 under the judicially created doctrine of obviousness-type double patenting over claims 1, 2, 3, 7, 8, 10, 11, 17, 19 and 20 of U.S. Patent No. 6,097,610 and claims 66-73 under the judicially created doctrine of obviousness-type double patenting over claims 1, 3, 6, 8, 10, 11, 13 and 16 of U.S. Patent No. 6,340,606.

These rejections are obviated by the enclosed Terminal Disclaimer.

IV. The Claims Define Patentable Subject Matter

The Office Action rejects claims 53, 54, 56, 58 and 64 under 35 U.S.C. §102(e) over U.S. Patent No. 6,208,525 to Imasu et al. and claims 53 and 54 under 35 U.S.C. §102(e) over U.S. Patent No. 5,844,317 to Bertolet et al. These rejections are respectfully traversed.

Neither Imasu nor Bertolet disclose a wiring pattern adhered on one side of a substrate by an adhesive material, the wiring pattern formed over penetrating holes as recited in independent claim 53. Instead, Imasu discloses electrodes 15, external terminals 13 and semiconductor chip 10 formed over of grooves 19a. See e.g., Fig. 12. Bertolet discloses adhesive conductive film 190 and metal bump 180 formed over hole 160. See e.g., Fig. 5.

V. Conclusion

In view of the foregoing, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Michael Britton
Registration No. 47,260

JAO:MB/nra

Attachments:
Appendix
Copy of Application Transmittal
Copy of Response to Notice to File Corrected Application Papers with Formal Drawings
Terminal Disclaimer

Date: March 13, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Specification:

Page 25, lines 17-23:

In this way, after the penetrating holes 214a are formed, the conductive member 118 is formed on the substrate 214, to constitute two-layer substrate. For example, if the substrate 214 is of a thermoplastic substance, it can be softened by heating, and a conductive foil adhered without the use of adhesive, and by etching thereof a conductive member 218 can be formed. Alternatively, sputtering may equally be applied.

Changes to Claims:

53. (Amended) A substrate having penetrating holes formed therein, the substrate having a ~~conductive member~~ wiring pattern adhered on one side thereof by an adhesive material over a particular region of the one side, the wiring pattern formed over ~~including~~ the penetrating holes, a part of the adhesive material ~~interposed in~~ formed on internal wall surfaces forming the penetrating holes so as not to stop up the penetrating holes.

55. (Amended) A substrate having penetrating holes formed therein, the substrate having a ~~conductive member~~ wiring pattern directly formed over a particular region including the penetrating holes on one side thereof, the substrate having protrusions formed in the internal wall surfaces of the penetrating holes by the material constituting the substrate.

58. (Amended) The substrate as defined in claim 53, wherein the ~~conductive member~~wiring pattern includes first and second portions, a part of the first portion positioned over each of the penetrating holes, the first portion having a greater width than the second portion.

59. (Amended) The substrate as defined in claim 55, wherein the ~~conductive member~~ wiring pattern includes first and second portions, a part of the first portion positioned

over each of the penetrating holes, the first portion having a greater width than the second portion.

66. (Amended) A method of manufacturing a substrate comprising:

providing a substrate with an adhesive material provided on one surface thereof;

carrying out punching from the side of the substrate on which the adhesive material is provided and in the direction of the opposite side thereof to form penetrating holes and to draw a part of the adhesive material into the penetrating holes; and

adhering a ~~conductive member~~ wiring pattern over a particular region on the one surface including the penetrating holes on the substrate through the adhesive material.

67. (Amended) A method of manufacturing a substrate comprising providing a substrate of a material of a higher elasticity than external electrodes, having penetrating holes in which the internal wall surfaces have protrusions, and having a ~~conductive member~~ wiring pattern directly formed over a region including the penetrating holes.

70. (Amended) The method of manufacturing a substrate as defined in claim 66, wherein the substrate is either of an insulating film ~~and a~~or of printed substrate.

71. (Amended) The method of manufacturing a substrate as defined in claim 67, wherein the substrate is either of an insulating film ~~and a~~or of printed substrate.

72. (Amended) The method of manufacturing a substrate as defined in claim 66, after adhering the ~~conductive member~~wiring pattern, further comprising providing an adhesive in which an anisotropic conductive material having conductive particles dispersed.

73. (Amended) The method of manufacturing a substrate as defined in claim 67, after adhering the wiring pattern~~conductive member~~, further comprising providing an adhesive in which an anisotropic conductive material having conductive particles dispersed.